15" High Resolution
Professional CRT Monitor

USER MANUAL

PLEASE READ THIS INSTRUCTION CAREFULLY!

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Introduction

Thank you for selecting our product. This manual relates to the following model:

- **15” HIGH RESOLUTION PROFESSIONAL COLOR MONITOR WITH QUAD BUILT-IN**

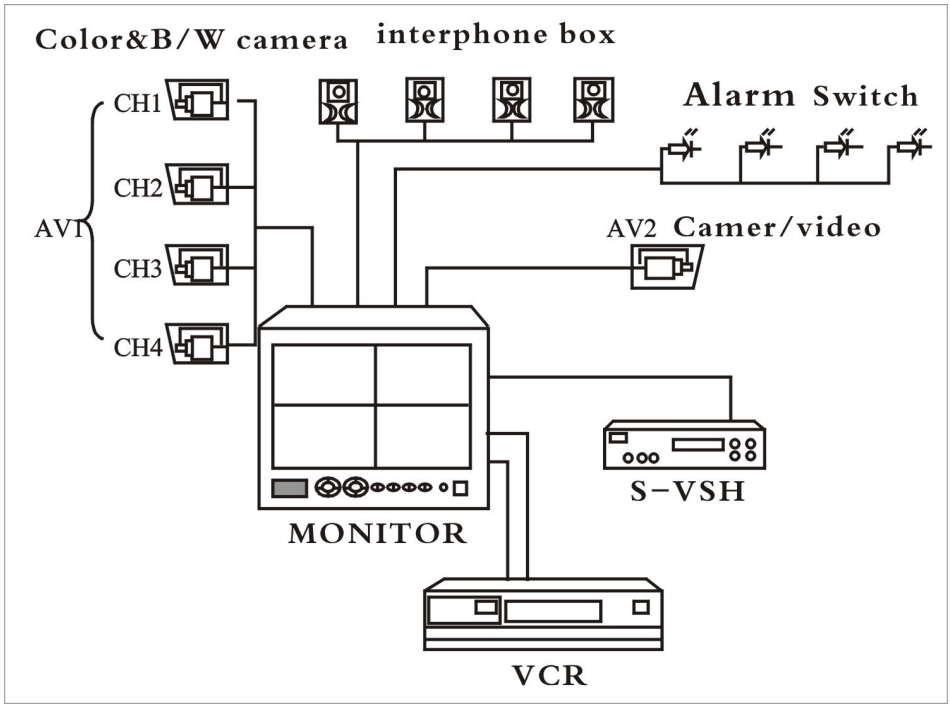
The specifications and information contained in this manual are provided for informational use only, and are subjected to change at any time without notice.

Features

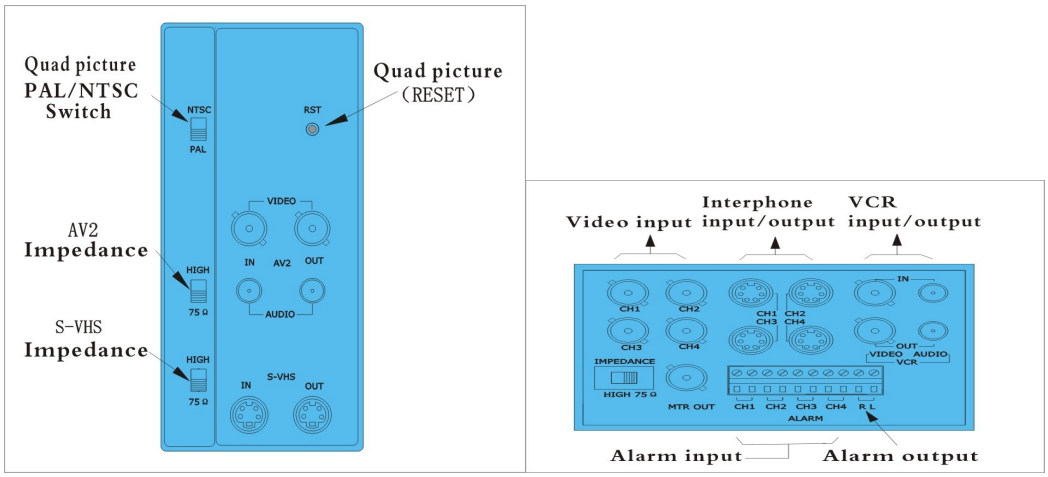
1. Real time display, recording & playback in single image mode
2. The latest difital real time display, recording & playback in quad mode
3. Auto full screen sequence or qutomatic switching display, 4 monitored images
4. Four channel alarm inputs for alarm detectors or emergecy buttons
5. One channel alarm output used for activation VCR or lighting
6. Video loss automatic detect & alarm
7. OSD is flexible and easy to operate
8. Selectable date/time display, and camera IP address/ID code & title display. Clock has more than 10 years operating time even when switched off or power off.
9. On the spot of watch with intercon in quad mode
10. I^2C channel control circuit, high reliability
11. Blue background noise control & black electric level expansion circuits improve the contrast
12. Power supply: 110→250V AC, 50Hz / 60Hz

Connection

Connection Diagram



Rear Panel Diagram



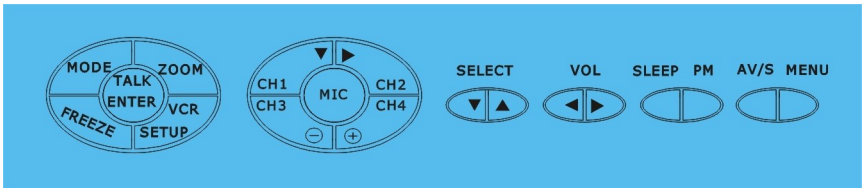
PAL/NTSC switch(MANUAL CONTROL)---- CH1-CH4

1) Video input terminals: accepts video input from cameras or other standard video equipment.
2) MTR OUT: loop-through quad output for external monitor
3) Impedance selection switch
4) VCR input and output terminals
5) S-VHS input and output terminals
6) Alarm terminals
7) AV2 input and output terminals
8) Audio input and output terminals

Operation

Front Panel Diagram

Operating buttons at front of monitor:



MODE

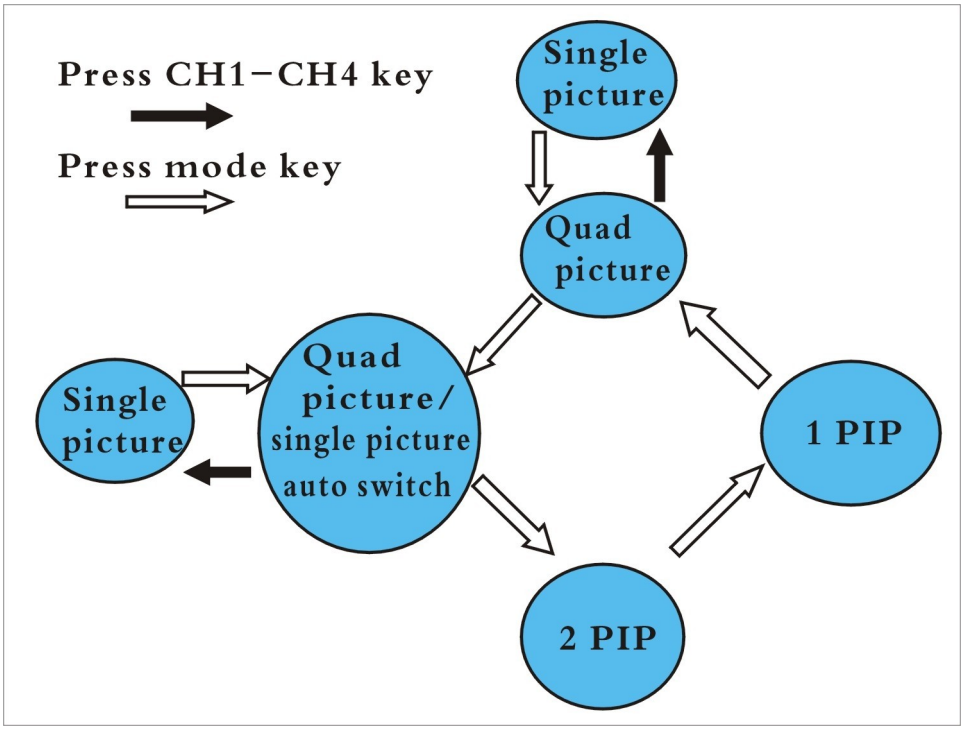
When in AV1 mode, press the key, the four picture automatic cyc disply; press this key again, the image become 2 PIP(picture in picture); press this key again, become 1 PIP,

图

A) In “quad” or “auto disply” mode, press CH1-CH4 key, then disply the single pricture(CH1-CH4).

B) In “2 PIP” mode, first press ENTER/TALK, then select a CH (CH1-CH4) as the main picture. Press other CH as the left sub-picture, and press the other CH as the right sub-picture.

C) In “PIP auto disply” mode, select one CH and press it as the main picture.



ENTER/TALK

When in single picture mode, press the key, “TALK ” in the picture, you can talk in this side and other side can listen.Unloosen this key, you can listen or monitor sound.(need connect loudspeaker)

In other situation, work in other key.

FREEZE

DISPLY MODE	Press “freeze” key first	Then press the “**1**”, “**2**”, “**3**” or “**4**” key to freeze
QUAD	Enter freeze fuction	Then press the “**1**”, “**2**”, “**3**” or “**4**” key to freeze
Auto disply	Not support freeze fuction	----------
2 PIP	Enter freeze fuction	Then press the “**1**”, “**2**”, “**3**” or “**4**” key to freeze
1 PIP	Freeze the main picture	----------
Single picture	Freeze the main picture	----------

Note: press the channel key again, unloosen freeze

Press “freeze” key, unloosen all freezed channel. Then exit the fuction.

When the channel was freezed, press “freeze” key and unloosen all freezed channels, and exit the fuction.

Zoom

A) zoom random position: firstly, press “zoom” key, enter zoom fuction, there is a shadow in the screen, press CH1, CH2,CH3,CH4 to up, down, left and right. Then press “enter/ talk” key, the picture in the shadow will zoom. Press “enter/ talk” key again, cancel the zoomed picture.

B) Zoom fixed position: the monitor has fuction to zoom 1/4 top left corner, top right corner, under righ corner, under left corner.

SETUP/VCR

A) In AV1, “quad” “1 PIP” “2PIP” or “single picture auto disply” mode, press this key, enter fuction of seting menu.

B) In AV1 ,the fixed single picture mode, press the key, “PLAYBACK” in the screen. If input VCR, then watch playback. Press CH1/CH2/CH3/CH4, return the single picture, or press MODE key to return quad picture.

CH14-CH4

In quad picture or single picture mode, press CH1-CH4 key, enter single pricture relevant channel.

SELECT

VOL◄ / VOL►

- When **not** using the menu, press **VOL◄** or **VOL►** to adjust the volume.

SLEEP

1) Press **SLEEP** key to activate timed switch-off.
2) Press **SLEEP** repeatedly to select the switch-off time.
3) To cancel timed switch-off press **SLEEP** until "00" is selected.

After timed switch-off, press **SELECT** to turn the monitor on again

P.M. – Picture Mode

- Press **P.M.** key to select the following picture modes:

PERSONAL:	Use the values for brightness, contrast, color and sharpness set by the user.
SOFT:	The picture is silky but less clear.
STANDARD:	The best setting for a picture under normal conditions.
RICH:	The picture is sharp but may be distorted.

VCR

- Press **VCR** key to select the video input: AV-1, AV-2 or S-VHS

MENU (2) – Monitor

1) Press **MENU (2)** key once to enter the monitor menu. The screen displays:
   PICTURE
   COLOR SYSTEM
   LANGUAGE ENG
2) Press **SELECT▼** or **SELECT▲** to move the curser to the required menu item.
3) Press **VOL◄** or **VOL►** to enter the selected submenu.

MIC

The position of tone arm.

Confirm Alarm

When the camera signal is lost:

- The display will switch to the lost picture,“ V LOSS” will be displayed on screen
- The buzzer alarm will sound (optional)
- An alarm output will occur

The buzzer alarm will stop when ENTER/TALK key is pressed or after the alarm timeout period. If no key is pressed the system will automatically confirm after the alarm timeout period(30 seconds).

Specifications

Model	15” Monitor
Picture Tube	15" high resolution color tube
Resolution	750 lines (Y/C)
Scanning System	AV2, S-VHS: PAL / NTSC system (automatic identification) Quad: PAL / NTSC standard system (manual control)
Scanning Frequency	Horizontal: 15.75KHz (NTSC) / 15.625KHz (PAL) Vertical: 60Hz (NTSC) / 50Hz (PAL)
Power Supply	110~240V AC, 50Hz / 60Hz
Power	Max: 65W+35W
Color Temp.	9300^0K
Video In/Out	AV1(quad) CVBS Input: 1V $_{p-p}$, 75Ω, BNC MTR(CVBS) Output: 1V $_{p-p}$, 75Ω/330Ω, BNC VCR input: 1V $_{p-p}$, 75Ω, BNC VCR onput: 1V $_{p-p}$, 75Ω, BNC AV2(single image) CVBS Input: 1V $_{p-p}$, 75Ω/150Ω, BNC CVBS Output: 1V $_{p-p}$, 75Ω S-VHS In / Out: mini DIN 4 pin plug ×2, loop-through output Y: 1V $_{p-p}$, 75Ω/330Ω C (PAL): 0.3V $_{p-p}$, 75Ω/330Ω C (NTSC): 0.288V $_{p-p}$, 75Ω/330Ω
Audio In/Out	AV1(quad) VCR IN: 390mVrms; high impedance,RCA VCR OUT: high impedance, AV2(single image) VCR IN:390mVrms; high impedance,RCA VCR OUT: loop through with “Audio in”, RCA
Audio System	Built-in loudspeaker, 8Ω / 3W, maximum RMS power of 1W
Ambient Temperature	Operating temperature: 0~40°C, relative humidity 40~90% Storage temperature: -25~55°C, relative humidity 20~90%
Dimensions (D×W×H)	D380×W362×H350mm
Loudspeaker	Input/Output:6 pin DIN plug Built in loudspeaker:8Ω/0.5W Power output:+12V D, max 250Ma Dimension:W70×D90×H50

Attention

1) To avoid any damage caused by humidity or electrostatic discharge, never expose the monitor to rain or extreme humidity. Never put drinks, potted plants or other objects on top of the monitor that may spill liquid into the monitor.
2) The circuit board inside the monitor contains hazardous high voltage. To avoid electric shock never allow any unqualified personnel to open the back cover of the monitor.
3) Keep the monitor well ventilated. Avoid exposure to direct sunlight and protect the monitor from any heat source.
4) When the monitor is not to be used for an extended period of time unplug the power connector.
5) In the unlikely event of malfunction, such as abnormal sound, smell or smoke, switch off the power immediately and unplug the power connector.
6) When cleaning the cabinet and the screen avoid of using solvent or chemicals that contain benzene or petroleum. For safety, unplug the power connector before cleaning.
7) Do not locate the monitor near any magnetic objects. Never move the monitor while it is switched on, so that it is not affected by magnetic fields. If the display has been affected by magnetism, switch off the main power for least 30 minutes. This step can enable the automatic demagnetizing circuit to work.